

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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| In the Matter of |) | |
| |) | |
| AT&T Petition to Launch a Proceeding |) | GN Docket No. 12-353 |
| Concerning the TDM-to-IP Transition, |) | |
| Petition of the National Telecommunications |) | |
| Cooperative Association for a Rulemaking |) | |
| to Promote and Sustain the Ongoing TDM-to-IP |) | |
| Evolution |) | |
| |) | |
| Policies and Rules |) | |
| Governing Retirement of Copper Loops |) | RM-11358 |
| By Incumbent Local Exchange Carriers |) | |
| |) | |
| Petition of XO Communications, LLC, |) | |
| Covad Communications Group, Inc., NuVox |) | |
| Communications and Eschelon Telecom, Inc. |) | |
| For a Rulemaking to Amend Certain Part 51 |) | |
| Rules Applicable to Incumbent LEC |) | |
| Retirements of Copper Loops and Copper |) | |
| Subloops |) | |

**COMMENTS OF BLUE ROOSTER TELECOM, INC., IMPULSE TELECOM, LLC.,
RURAL BROADBAND NOW! AND SONIC TELECOM, LLC**

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I. Introduction and Summary

The undersigned, Blue Rooster Telecom, Inc., Impulse Telecom, LLC, Rural Broadband Now! and Sonic Telecom, LLC (Jointly, the “CLECs”), are CLECs, operating in the state of California, that have deployed Ethernet over Copper (“EoC”) and are using this technology to bring broadband to small and medium sized businesses and residential customers. These CLECs have made extensive investments to bring broadband to these customers who lack access to broadband over fiber (including via Ethernet). Consistent with the request filed on January 25, 2013 by Mpower Communications Corp., and U.S. TelePacific Corp.; ACN Communications Services, Inc.; Level 3 Communications, LLC; TDS Metrocom, LLC and Telecommunications for the Deaf and Hard of Hearing, Inc. (“TDI”) (“Joint Request”)¹ the Commission should modify its copper retirement rules so that customers served by EoC deployment can continue to receive a choice of broadband services and so that CLECs can continue investing in technology that uses the copper infrastructure that is already in place to expand the availability of reasonably priced broadband.

Blue Rooster Telecom, Inc. (“Blue Roster”) a CLEC based in San Luis Obispo, CA, provides telephone services including POTS, Centrex, PBX Trunks, PRI, and SIP Trunks and transmission services such as EoC, Dedicated Metro Fiber, T-1 and Bonded T-1 and ADSL 2+ at ever increasing speeds due to frequent improvements in technology.

Impulse Telecom, LLC (“Impulse”), a CLEC based in Santa Barbara, currently serves approximately 1,500 business customers primarily on the Central Coast of California. Impulse provides service over its own IP network with hubs in San Luis Obispo, Goleta, Santa Barbara

¹ Letter of U.S. TelePacific Corp. et al. Requesting Commission to Refresh Record and Take Expedited Action to Update Copper Retirement Rules, WC Docket Nos. 10-188, 12-353; GN Docket Nos. 09-51, 13-5; RM-11358 (filed Jan. 25, 2013) (“Joint Request”).

and Los Angeles. Impulse provides dedicated and enhanced Internet access, hosted IP PBX service, local and long distance telephone service, hosting, co-location, managed virtual private networks and MPLS networks. Networking options include up to 7Mbps ADSL, up to 30Mb ADSL 2+, T1 and bonded T1 (3 to 9 Mbps), 45Mbps DS-3, wireless, Ethernet over Copper at speeds of 5Mb to 100Mb, and fiber-based Metro Ethernet at 10Mbps-1Gig.

Rural Broadband Now! (“RBN”) is a small, facilities-based CLEC serving rural markets in Mendocino County, California. RBN, and its parent company Willits Online, have an extensive microwave network used to provide wireless broadband. Together, RBN and Willits Online provide high speed wireless broadband Internet for the home and business, web site hosting and server collocation, dedicated access services and remote office /telecommuting/VPN solutions.

Sonic Telecom, LLC (“Sonic”) is a CLEC based in Santa Rosa, California and offers residential and business services throughout California using EoC and other copper based broadband, VoIP, wireless and satellite. Sonic has collocated EoC equipment in 140 central offices in California. Currently, Sonic’s broadband network passes 3.5 million residences in California offering services in the entire greater Bay Area from north of Napa to San Jose and the greater Sacramento area. Recently, Sonic added 50 ILEC wire centers in the Los Angeles area to its footprint.

For residential customers, who represent approximately two thirds of Sonic’s customers, it offers residential broadband at up to 20 Mbps download/2.5 Mbps upload, depending upon distance, and traditional home phone service and features with unlimited nationwide calling. For business customers, predominantly small businesses that are among the remaining one third of all of Sonic’s accounts, it offers ADSL2+/POTS — branded as FusionSM Broadband service —

utilizing two copper loops capable of speeds of 40Mbps down/5Mbps upload, depending upon distance, at a monthly rate of \$89.95 (plus voice service taxes and fees) on a no-contract, month-to-month basis. For business customers with higher bandwidth requirements, Sonic offers FlexLink® Ethernet, a business class service available at 5 - 100 Mbps symmetric speeds starting at a monthly rate of \$229.00, and offering Quality of Service (QoS) to prioritize time sensitive traffic, such that data and voice bandwidth are handled dynamically. For enterprise level businesses, product offerings include Internet access, as well as site to site wide area networking, and reliable hosting for servers, with flexible bandwidth on demand, backup power, redundant cooling and biometric security. As discussed in more detail below, Sonic also provides Gigabit download speeds via its FTTP platform to residential customers on a single block in Sebastopol, California. Sonic is in the process of expanding this network to other parts of Sebastopol and is in the early stages of deploying an FTTP network to provide Gigabit broadband to approximately 2,000 homes in San Francisco.

II. California CLECs are Bringing the Unleashed Potential of Copper Loops to Customers that Lack Viable Alternatives

In the *Triennial Review Order*, the Commission recognized that while it sought to promote more deployment of fiber facilities, such deployment would take considerable time and therefore it must also “promote the deployment of equipment that can unleash the full potential of the embedded copper loop plant so that consumers can experience enhanced broadband capabilities before the mass deployment of fiber loops.”² The CLECs have taken that challenge

² *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd. 16978, 17127 ¶ 244 (2003) (“TRO”), *vacated and remanded in part, aff’d in part, United States Telecom Ass’n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) (*USTA II*), *cert. denied*, 543 U.S. 925 (2004), *on remand, Unbundled Access to Network Elements*, 20 FCC Rcd. 2533 (2005)

and responded by deploying EoC in 343 California wire centers, making broadband over EoC available to 250,000 small and medium sized businesses.³ In order to expand these investments, however, CLECs need regulatory certainty that their investments will not be stranded due to premature retirement of the copper loops on which these broadband services rely.

The National Broadband Plan recognized the continued value available from copper loops and recommended that the Commission address its copper retirement rules to “ensure appropriate balance in its copper retirement policies.”⁴ The Joint Request urges the Commission to act quickly to restore that balance and provide CLECs the investment certainty necessary so that EoC and other broadband over copper technologies remain viable services while most of the country continues to wait for new fiber deployment.

The undersigned CLECs are currently providing broadband service to a broad cross section of customers, urban and rural, business and residential, across California. In many cases the CLEC has deployed EoC because it brings broadband to customers who lack access to any other source of broadband; or it provides a more robust broadband alternative to customers that have choices for broadband that are ill suited for their needs and place them at a competitive disadvantage to customers that live in other markets.

A. EoC Brings Broadband to Customers That Otherwise Lack Access to Broadband

One benefit of EoC is the ability to deliver broadband to customers, particularly those in rural markets that previously did not have a viable broadband service. For example, RBN currently provides EoC based broadband to approximately forty percent of its parent company’s

(“*TRRO*”), *aff’d*, *Covad Commc’ns Co. v. FCC*, 450 F.3d 528 (D.C. Cir. 2006).

³ Joint Request at p. 4-5; Declaration of Nancy Lubamersky on Behalf of Mpower Communications Corp. and U.S. TelePacific Corp. in Support of Joint Request, at ¶ 11.

⁴ National Broadband Plan Recommendation 4.9.

subscribers. If copper was not available, many of these customers would not be able to receive any broadband service at all — even via wireless broadband service which otherwise would have to fill in the gap. Competition from cable television companies is sporadic in the rural markets that RBN serves. In towns such as Laytonville, Covelo and Potter Valley, there is simply no cable service at all. In the residential areas of Willits (Brooktrails Township), cable deployment is sporadic, as there are alternating streets that have cable while the others do not. Many residents who could be served by a 500 foot extension either cannot get service or are effectively denied service due to the extreme fees for such extensions. The absence of cable plant in many areas obviously means there is little if any cable penetration in the business market.

In some of RBN's territory Verizon-California's network is not connected to any fiber and Verizon claims it has exhausted its interoffice capacity, making it impossible for CLECs to obtain T1s, for example. RBN's parent company can provide wireless broadband in these areas but there are technical limitations on such service. Wireless broadband is limited since the technology requires line of sight from the antenna to the end user premise, which is rare in the tree covered rolling hill terrain common in Mendocino County. Under these circumstances, RBN can offer service via copper loops where such loops are available. Since Verizon claims that it will not add new interoffice capacity for T1s — at any price — provisioning EoC in many cases is the only option available for customers to obtain broadband.

B. EoC Provides Business Customers with Service That Makes Them More Competitive

Similarly, another benefit of broadband delivered over copper is that service providers can deliver a more robust service that meets the needs of small and medium sized business, providing them the enhanced security and dedicated transmission usually only available to large corporate enterprises that can afford dedicated DS3s and above. The use of copper, for instance,

has enabled RBN to reach many customers who cannot be served by wireless at all, or to provide higher broadband capacity to customers that seek greater throughput than available via wireless. In addition to higher bandwidth, certain customers, particularly businesses, prefer the security and reliability that is available via EoC broadband compared to wireless based service.

RBN's copper based service also enables the more advanced services that businesses require, such as Ethernet virtual circuits and other dedicated connectivity options that wireless broadband solutions cannot support. With wireless broadband, the channel provisioned to the end user is shared among other users in the service area. RBN's copper-based service, on the other hand, provides each customer with dedicated links and a quality of service that is unobtainable with wireless. It also certainly reduces the installation costs, given that wireless broadband requires installation of antennas; a fiber build involves major construction but a copper service, in contrast, requires little more than connecting equipment at the end user premises and provisioning the pairs already running to the end user. Customers, when they have the option, prefer the EoC-based offering because it is faster to provision, is less expensive, and requires less maintenance.

Impulse has also experienced growing demand for EoC broadband service from its small and medium sized business customers. Historically, Impulse served its customers primarily using finished broadband services obtained at wholesale from the ILEC and adding IP based telephone, email and Internet services. But the bandwidth requirements of its small business customers have exploded, particularly as businesses shift more IT functions and business processes to the cloud. The DSL option frequently is not suitable because it only provides 7 Mbps downstream and 768 Kbps upstream. But the costs to obtain higher bandwidth, such as multiple T-1s or fiber, are out of reach for the vast majority of businesses in the area. To bridge the gap for these bandwidth

starved businesses, Impulse built facilities (DSLAMs, Ethernet and EoC gear) into five local central offices over the last eighteen months at an approximate cost of \$100K per Central Office in order to provide bonded ADSL2+ over two copper loops to attain 30 Mbps download and 4 Mbps upload speeds, as well as Ethernet-over-Copper using up to 24 copper loops to attain fiber-like symmetric speeds up to 100 Mbps.

The use of innovative next-generation equipment that has been developed recently to “unleash the full potential” of the copper loop has rapidly expanded the availability of high capacity Ethernet. For example, over 95% of Impulse’s customers now are served with copper-based services.

The CLECs’ customers have obtained significant benefits due to the advances in EoC technology. RBN has a large hospital customer that was previously served with two bonded T1s for 3 Mbps connectivity. The hospital had tried for several years, without success, to convince AT&T to provide higher bandwidth to enable new healthcare applications, even if faster service required AT&T to deploy fiber. The hospital's primary requirement was the ability to interchange data with major medical centers for remote consultations and allow for remote review of X-ray images. RBN provisioned a 24 Mbps pipe over bonded EoC pairs to the facility within 7 days of the hospital’s order, without any substantial installation or setup charges.

RBN’s EoC service has also helped local educators. RBN serves a rural high school in a remote, underserved area, with a high poverty level. The school educates several hundred students and needed to upgrade its connection to the county education department. This critical link provides all internal and internet connectivity as well as access to county programming and educational resources. EoC was the only alternative upgrade since the ILEC was out of interoffice capacity, and provided no advanced services in the area. Again deploying fiber was

impractical due to distance and cost, and wireless was not suitable for the application. RBN provisioned a 45 Mbps Ethernet virtual circuit using 8 bonded copper pairs, and hauls that circuit 50 miles to interconnect with a fiber handoff at the County education department.

As these examples illustrate, the Commission should make sure that its copper loop retirement policies continue to spread the benefits of reasonably priced, advanced broadband service to as many American as possible and not allow ILECs to retire copper loops without ensuring that competition is preserved.

III. EoC Provides a Bridge to Fiber Investment in the Future

While EoC and other copper based access technologies can continue to support expanded broadband deployment for the foreseeable future, the undersigned CLECs do not disagree with the Commission's goal of expanding the availability of fiber deployment expressed in the *TRO*.⁵ But while pursuing the long term goal of fiber deployment in the future, customers continue to need affordable broadband in the present and short term until fiber becomes a reality. Sonic is an ideal example of how copper based solutions such as EoC need to remain viable as providers incrementally deploy fiber.

Sonic currently has deployed a residential Fiber-to-the-Premise network in Sebastopol, California. Using this network, Sonic provides a 100 Mbps broadband service for a monthly fee of \$39.95, and Gigabit service for a monthly fee of \$69.95.⁶ But the footprint for this service is limited. While Sonic's Gigabit fiber network initially served just a single block, it now passes 900 homes in a town that has approximately 7,397 residents.⁷ While Sonic intends to expand this

⁵ *Supra* n. 2.

⁶ Rob Pegoraro, "Gigabit Internet for \$70: the unlikely success of California's Sonic.net" *Ars Technica*, (Feb 26 2012) available at <http://arstechnica.com/tech-policy/2012/02/gigabit-internet-for-80-the-unlikely-success-of-californias-sonicnet/>

⁷ *Id.*

service in Sebastopol, it cannot employ a build it and they will come business model. Instead, Sonic plans to expand its FTTP network in areas where it obtains a large enough base of customers subscribing to copper based service to make fiber deployment economic.

Sonic also has plans to deploy an FTTP network in San Francisco, but again the initial deployment is limited because of the significant costs involved — between \$500.00 to \$2,500.00 per customer.⁸ Sonic's plans include an initial pilot region of two thousand homes in the city's Sunset District, with possible expansion to additional San Francisco premises over five years. Similar to its Sebastopol FTTP network, deployment in San Francisco is dependent on the continued ability to reach customers via copper until it obtains a critical mass of customers to justify fiber investment. Sonic's FTTP ambitions demonstrate that the use of existing copper and fiber deployment is not a zero sum game, but instead that preserving access to copper is a necessary component of the eventual transition to fiber based IP networks.

IV. Conclusion

The undersigned CLECs support the Joint Request that the Commission modify its copper retirement rules to ensure that customers currently receiving broadband over copper loops, such as business customers that obtain EoC, do not lose their affordable broadband service. Further, the Commission's copper retirement rules must be modified to promote the regulatory certainty necessary for CLECs to continue investing in innovative technology that can provide business and residential customers with affordable broadband service using existing infrastructure.

Consistent with the Joint Request, the undersigned CLECs urge the Commission to:

- Suspend the Current Rules Regarding Copper Retirement pending enactment of modified rules

⁸ *Id.*

- Reverse the “deemed denied” standard in the current rules
- Clarify “retirement” does not permit physical removal
- Separately define a standard for removal
- Apply the retirement rules to the feeder portion of the loop
- Make retirement/removal data easily accessible and searchable
- Clarify that state commissions may adopt restrictions on disconnection, removal, or disabling of copper loops that are stronger than the Commission’s rules.

Respectfully submitted,

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